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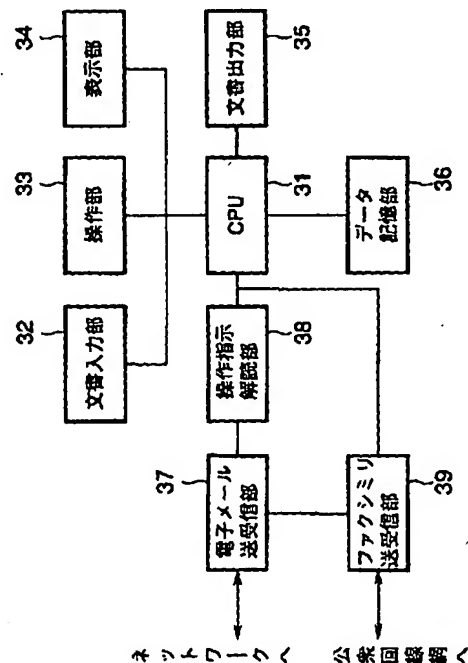
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(54) 【発明の名称】 文書管理装置

(57) 【要約】

【課題】 汎用のパーソナルコンピュータや携帯情報端末との間の電子メールのやり取りによって文書の登録、検索、取得、結果の返信を行う。

【解決手段】 ネットワークを介して他の端末と電子メールの送受信を行う電子メール送受信部 37 と、受信したメール内容が指示書要求、文書登録、文書検索、文書取得のいずれかを解釈する操作指示解釈部 38 と、指示書要求のときには該当端末に対して予め定めた書式の操作指示書を返信し、文書登録の操作指示書のときにはデータ記憶部 36 に対する文書登録処理を行うとともに該当端末に登録結果を返信し、文書検索の操作指示書のときにはデータ記憶部に対する文書検索処理を行うとともに該当端末に検索結果を返信し、文書取得の操作指示書のときにはデータ記憶部からの文書取得処理を行うとともに該当端末に取得結果を返信する CPU 31 を設けている。



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Notes:

1. Untranslatable words are replaced with asterisks (****).
2. Texts in the figures are not translated and shown as it is.

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Dictionary: Last updated 05/18/2007 / Priority: 1. Information communication technology (ICT) / 2. Electronic engineering

[Document Name] Description

[Title of the Invention] Documentation-management equipment

[Claim(s)]

[Claim 1] An E-mail transceiver means to perform other terminals and ***** of an E-mail through a network, An operator guidance decode means by which the contents of e-mail which this E-mail transmission-and-reception ***** received from other terminals decode a written directive demand and the run book of registration of a document, search of a document, and acquisition of a document, It sends a reply considering the run book of the format which defined beforehand said E-mail transmission-and-reception ***** to other terminals which control and correspond when this operator guidance decode means decoded a written directive demand as an E-mail. It sends a reply considering a registration result as an E-mail to other terminals which control said E-mail transmission-and-reception ***** , and correspond while performing registration processing of a document to the data storage section, when said operator guidance decode means decodes the run book of registration of a document. It sends a reply considering search results as an E-mail to other terminals which control said E-mail transmission-and-reception ***** , and correspond while performing retrieval processing of the document to said data storage section, when said operator guidance decode means decodes the run book of search of a document. When said operator guidance decode means decodes the run book of acquisition of a document, while performing acquisition processing of the document from said data storage section Documentation-management equipment characterized by establishing the documentation-management control means which sends a reply considering an acquisition result as an E-mail to other terminals which control said E-mail transmission-and-reception ***** , and correspond.

[Claim 2] A facsimile transceiver means to perform other terminals and ***** of

facsimile data through a public network, An operator guidance decode means by which the facsimile data content which this facsimile transmission-and-reception ***** received from other facsimile apparatus decodes a written directive demand and the run book of registration of a document, search of a document, and acquisition of a document, It sends a reply considering the run book of the format which defined said facsimile transmission-and-reception ***** beforehand to other facsimile apparatus which control and correspond when this operator guidance decode means decoded a written directive demand as facsimile data. It sends a reply considering a registration result as facsimile data to other facsimile apparatus which control said facsimile transmission-and-reception ***** , and correspond while performing registration processing of a document to the data storage section, when said operator guidance decode means decodes the run book of registration of a document. It sends a reply considering search results as facsimile data to other facsimile apparatus which control said facsimile transmission-and-reception ***** , and correspond while performing retrieval processing of the document to said data storage section, when said operator guidance decode means decodes the run book of search of a document. When said operator guidance decode means decodes the run book of acquisition of a document, while performing acquisition processing of the document from said data storage section Documentation-management equipment characterized by establishing the documentation-management control means which sends a reply considering an acquisition result as facsimile data to other facsimile apparatus which control said facsimile transmission-and-reception ***** , and correspond.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the documentation-management equipment which can register a document from the exterior which carried out remoteness through the network or the public network, can search the document which a user needs, or can acquire a document.

[0002]

[Description of the Prior Art] Documentation-management equipment prepares CPU(central processing unit) 1 which constitutes a control-section main part, as shown in drawing 11. While connecting the displays 3, such as the control units 2, such as a keyboard and a mouse, and a CRT display, to this CPU1, the data storage sections 6, such as the document output sections 5, such as the document input sections 4, such as an image scanner, and a printer, and a hard

disk, are connected.

[0003] And the document which the document input section 4 should register by control of CPU1 is read at the time of document registration, and it stores this read document data in the data storage section 6. At this time, secondary information, such as bibliographic data, such as a document name, a maker, a title, and a date, and a keyword, a summary, is associated and stored in primary information besides the document data as primary information. Moreover, according to the search type directed by secondary information, the document data which corresponds from the document data stored in the data storage section 6 by control of CPU1 is extracted from a user at the time of a document retrieval, and it displays the secondary information or primary information of document data applicable to a display 3 as search results. Furthermore, when the copy of document corresponding is required, a printout is carried out to a form from the document output section 5.

[0004] With this documentation-management equipment, a series of operations from a user are performed through a user interface with a display 3 from a control unit 2. In this case, a user goes to the place in which documentation-management equipment is installed, and operates it there.

[0005] In order to solve such troublesomeness, as shown in drawing 12, it is possible to operate by remote control from other terminal units which connected documentation-management equipment 12 to the network 11, and were connected as well as the network 11 to this documentation-management equipment 12. The terminal unit which included the exclusive software for operating this documentation-management equipment 12 in the dedicated terminal 13 and the general-purpose personal computer 14 of this documentation-management equipment 12 as other terminal units will be used.

[0006]

[Problem to be solved by the invention] However, when the personal computer 14 which incorporated the dedicated terminal 13 and exclusive software in this way is used, In order for many users to enable it to operate by remote control from their hand by considering documentation-management equipment 12 as network correspondence, each user has to install the personal computer 14 incorporating the dedicated terminal 13 or exclusive software, respectively. In the case of the dedicated terminal 13, there is a problem that great cost starts equipment itself. Moreover, in the case of the personal computer 14 incorporating exclusive software, the cost of hardware does not start, but exclusive software

must be included in a personal computer 14, and there is a problem that cost starts too. Furthermore, since there was an operating system of various computers, there was trouble that the software for exclusive use corresponding to each operating system had to be created.

[0007] Then, invention according to claim 1 uses the electronic mail communication function on a network. Registration of a document, search, acquisition, and the documentation-management equipment that can improve economical efficiency while being able to perform the reply of a result further and being able to do use easily are offered by exchange of the E-mail between the general-purpose personal computer and general-purpose Personal Digital Assistant which do not incorporate software for exclusive use.

[0008] Moreover, invention according to claim 2 uses the facsimile communication function on a public network. Registration of a document, search, acquisition, and the documentation-management equipment that can improve economical efficiency while being able to perform the reply of a result further and being able to do use easily are offered by the facsimile communication between the general-purpose facsimile apparatus which do not incorporate software for exclusive use.

[0009]

[Means for solving problem] An E-mail transceiver means by which invention according to claim 1 performs other terminals and ***** of an E-mail through a network, An operator guidance decode means by which the contents of e-mail which this E-mail transmission-and-reception ***** received from other terminals decode a written directive demand and the run book of registration of a document, search of a document, and acquisition of a document, It sends a reply considering the run book of the format which defined E-mail transmission-and-reception ***** beforehand to other terminals which control and correspond when this operator guidance decode means decoded a written directive demand as an E-mail. It sends a reply considering a registration result as an E-mail to other terminals which control E-mail transmission-and-reception ***** , and correspond while performing registration processing of a document to the data storage section, when an operator guidance decode means decodes the run book of registration of a document. It sends a reply considering search results as an E-mail to other terminals which control E-mail transmission-and-reception ***** , and correspond while performing retrieval processing of the document to the data storage section, when an operator guidance decode means decodes the run book of search of a document. When an operator guidance decode means decodes the run book of acquisition of a document, while performing acquisition

processing of the document from the data storage section, the documentation-management control means which sends a reply considering an acquisition result as an E-mail to other terminals which control E-mail transmission-and-reception ***** , and correspond is established.

[0010] A facsimile transceiver means by which invention according to claim 2 performs other terminals and ***** of facsimile data through a public network, An operator guidance decode means by which the facsimile data content which this facsimile transmission-and-reception ***** received from other facsimile apparatus decodes a written directive demand and the run book of registration of a document, search of a document, and acquisition of a document, It sends a reply considering the run book of the format which defined facsimile transmission-and-reception ***** beforehand to other facsimile apparatus which control and correspond when this operator guidance decode means decoded a written directive demand as facsimile data. It sends a reply considering a registration result as facsimile data to other facsimile apparatus which control facsimile transmission-and-reception ***** and correspond while performing registration processing of a document to the data storage section, when an operator guidance decode means decodes the run book of registration of a document. It sends a reply considering search results as facsimile data to other facsimile apparatus which control facsimile transmission-and-reception ***** and correspond while performing retrieval processing of the document to the data storage section, when an operator guidance decode means decodes the run book of search of a document. When an operator guidance decode means decodes the run book of acquisition of a document, while performing acquisition processing of the document from the data storage section The documentation-management control means which sends a reply considering an acquisition result as facsimile data to other facsimile apparatus which control facsimile transmission-and-reception ***** and correspond is established.

[0011]

[Mode for carrying out the invention] The form of operation of this invention is hereafter explained with reference to Drawings. (Form of the 1st operation) As shown in drawing 1, the email server 23 for using documentation-management equipment 22 and an E-mail for a network 21 and two or more personal computers 24 and 24 are connected. The network 21 is connected also with the external network through the Internet again from the router 25.

[0012] Said email server 23 manages the E-mail from an external network, and the E-mail to an external network through the E-mail or the Internet in a network 21, respectively. [said documentation-management equipment 22] The

electronic mail client software by POP (Post Office Protocol) for receiving SMTP (Simple Mail Transfer Protocol) and the E-mail for transmitting an E-mail is carried. Moreover, said documentation-management equipment 22 carries the facsimile function by a FAX modem etc., and has come to be able to perform other facsimile apparatus 27 and facsimile communications through the public network 26.

[0013] Said personal computer 24 is the environment where an E-mail can be used by the electronic mail client software bundled from the start, or the software which the freeware or the user existing [many] purchased separately. Moreover, an E-mail can be used now from the Personal Digital Assistant which the personal computer connected to the external network not only through the personal computer 24 in a network 21 but through the Internet and an individual carry.

[0014] That is, a user transmits the E-mail which set the title of the E-mail to "Request format" from the personal computer linked to the personal computer 24 in a network 21, or an external network, or the Personal Digital Assistant to said documentation-management equipment 22. Said documentation-management equipment 22 will send a reply the run book of the text format of the format defined beforehand as shown in drawing 2 by E-mail, if the E-mail of such a title is received.

[0015] The user can transmit operator guidance mail of the right format by editing deletion, an addition, etc. of the unnecessary character of the answered E-mail. In addition, when the user has the run book of the right format beforehand or knows format, it is not necessary to perform a run book demand. A user is transmitting operator guidance mail of the text format according to a fixed format to said documentation-management equipment 22, and performs registration of a document, search, acquisition, etc.

[0016] Operation is directed by the character string between discernment "header IDS Operation" a and the discernment footer "IDS End" b which are shown in drawing 2. "File : when it is shown which [of two or more database files in documentation-management equipment 22] "c chooses, choosing all the databases when referred to as "all", and choosing a specific database, it specifies by the database name etc. "Action : "d carries out directions of operation, such as registration (register) of a document, search (search), and acquisition (retrieve), and deletes except the character to direct.

[0017] "Command:" e is what shows the concrete instruction content of directions of operation. For example, when it points to search; "Keyword=aaa*bbb" is directions of searching the document with which both a character string "aaa" and "bbb" exist as a keyword, and directions of searching "author=somebody" with an author name. Otherwise, various instruction contents, such as the date and a document name, are assumed. Moreover, when it points to registration, these instruction contents are registered as secondary information stored in a document body by relating, and the document body attached as an attachment of an E-mail is registered as primary information.

[0018] It is what specifies where "Reply:" f outputs an operation result. If it will send a reply by E-mail if the e-mail address "ccc@xxx.zzz.co.jp" is specified, and it is outputted to the facsimile apparatus specified when specifying the facsimile number and is specified as "local", an operation result will be outputted from the output section in documentation-management equipment 22.

[0019] "Format : "g is the output form of an operation result, if it specifies it as "header", will use as a table only secondary information, such as a title of each document obtained, for example by search, a writing name, and a date, and will output it. On the other hand, if it is specified as "detail", the searched document body will be outputted. "Pages:" h is the maximum pagination to output and is kept from outputting the result exceeding the pagination specified even if a huge number of documents were searched.

[0020] Drawing 3 is the block diagram of said character management equipment 22. [a control-section main part] The data storage sections 36, such as the document output sections 35, such as the displays 34, such as the control units 33, such as the document input sections 32, such as CPU(central processing unit) 31 and an image scanner, and the keyboard to constitute, and a mouse, and a CRT display, and a printer, and a hard disk, and a network 21 are passed. The contents of e-mail which E-mail transmission-and-reception **** 37 as E-mail transmission-and-reception ***** which performs transmission-and-reception ***** of said email server 23 and an E-mail, and this E-mail transmission-and-reception **** 37 received from other terminals [demand / written directive] Facsimile transmission-and-reception **** 39 as facsimile transmission-and-reception ***** which performs other facsimile apparatus 27 and facsimile communications through the operator guidance decode section 38 and the public network 26 as an operator guidance decode means which decode whether it is the run book of registration of a document, search of a document, and acquisition of a document is formed. Said CPU31 send a reply considering the run book of the format shown in drawing 2 to other terminals (personal computer 24 etc.) which control said E-mail transmission-and-reception **** 37, and correspond when said operator guidance decode section 38 decodes a written directive

demand as an E-mail. It sends a reply considering a registration result as an E-mail to other terminals which control said E-mail transmission-and-reception **** 37, and correspond while performing registration processing of a document to said data storage section 36, when said operator guidance decode section 38 decodes the run book of registration of a document. It sends a reply considering search results as an E-mail to other terminals which control said E-mail transmission-and-reception **** 37, and correspond while performing retrieval processing of the document to said data storage section 36, when said operator guidance decode section 38 decodes the run book of search of a document. When said operator guidance decode section 38 decodes the run book of acquisition of a document, while performing acquisition processing of the document from said data storage section 36, the documentation-management control means which sends a reply considering an acquisition result as an E-mail to other terminals which control said E-mail transmission-and-reception **** 37, and correspond is formed.

[0021] That is, said CPU31 perform the main process shown in drawing 4. First, this is in the state of the waiting for E-mail reception, and if a subject field receives the E-mail of "Request format", it will perform run book reply processing in S1. Moreover, it investigates whether if a subject field is not "Request format", a discernment header is in the text, and if there is no discernment header, error mail reply processing will be performed in S2.

[0022] Moreover, if a discernment header is in the text, said operator guidance decode section 38 will be made to decode an instruction content in S3. And if the contents of decode are "Action:register", document registration processing will be performed in S4. Moreover, if the contents of decode are "Action:search", document-retrieval processing will be performed in S5. Moreover, if the contents of decode are "Action:retrieve", document acquisition processing will be performed in S6.

[0023] As said run book reply processing S1 is shown in drawing 5, first [S11] The e-mail address of a transmitting agency is acquired from the From field of the mail header specified by SMTP of e-mail which received. The e-mail address is specified as the transmission destination of response mail, the From field is specified as the e-mail address of documentation-management equipment 22, and the Subject field is specified as "Re:Request format." Then, the run book of the text format shown in drawing 2 as the text by S12 is written in. And in S13, response mail is sent to E-mail transmission-and-reception **** 37, and transmitting [a run book] origin is answered.

[0024] As said error mail reply processing S2 is shown in drawing 6, first [S21]

The e-mail address of a transmitting agency is acquired from the From field of the mail header specified by SMTP of e-mail which received. Specifying the e-mail address as the transmission destination of response mail, the From field is the e-mail address of documentation-management equipment 22, and the Subject field is "Re to the title of a transmitting agency. : Add and specify ". Then, the sentence which shows as the text that there is an error in the format of a run book by S22 is written in. And response mail is sent to E-mail transmission-and-reception **** 37 in S23, and a transmitting agency is answered [that there was an error and].

[0025] Said document registration processing S4 is "File at S41 first, as shown in drawing 7. : the database specified by " is chosen. And it investigates whether there are any attached papers and error mail reply processing S2 mentioned above if there were no attached papers is performed. Moreover, if there are attached papers, it stores in said data storage section 36 as the text (primary information) of a document which registers attached papers in S42. And in S43, it relates with the text by making into secondary information an author name, a date, a keyword, etc. which were specified by "Command:", and stores in said data storage section 36.

[0026] Then, if the designated destination of "Reply:" investigates an e-mail address or a FAX number and is an e-mail address, the sentence which shows that the transmission destination was made into the specification address and document registration was completed in the text in S44 will be written in. And in S45, response mail is sent to E-mail transmission-and-reception **** 37, and it sends a reply. Moreover, if a designated destination is a FAX number, in S46, the sentence which shows that document registration was completed will be changed into a bitmapped image, and a bitmapped image will be transmitted to a specification FAX number by facsimile transmission-and-reception **** 39 S47. Moreover, if the designated destination of "Reply:" is not an e-mail address or a FAX number, either, the sentence which shows that document registration was completed in S48 will be outputted by the document output section 35.

[0027] Said document-retrieval processing S5 is "File at S51 first, as shown in drawing 8. : Choose the database specified by ". Then, a database is searched with the keyword specified by "Command:" S52, and an applicable document is extracted. And it investigates whether it is "Format:detail", and if it is "Format:detail", the table of the primary information of a document and secondary information extracted in S53 will be created. Moreover, if it is not "Format:detail", the table of the secondary information of the document extracted in S54 will be created.

[0028] Then, it writes in the range which the designated destination of "Reply:" investigates an e-mail address or a FAX number, and does not exceed the pagination which specified the table of the document which made the transmission destination the specification address in S55, and was extracted in the text when it was an e-mail address by "Pages:." And in S56, response mail is sent to E-mail transmission-and-reception **** 37, and it sends a reply. Moreover, if a designated destination is a FAX number, in S57, it will change into a bitmapped image in the range which does not exceed the pagination which specified the table of the extracted document by "Pages:", and a bitmapped image will be transmitted to a specification FAX number by facsimile transmission-and-reception **** 39 S58. Moreover, if the designated destination of "Reply:" is not an e-mail address or a FAX number, either, it will output by the document output section 35 in the range which does not exceed the pagination which specified the table of the document extracted in S59 by "Pages:."

[0029] Said document acquisition processing S6 is "File at S61 first, as shown in drawing 9. : Choose the database specified by ". Then, the document which corresponds by the publication number specified by "Command:" in S62 is extracted. And it writes in the range which the designated destination of "Reply:" investigates an e-mail address or a FAX number, and does not exceed the pagination which specified the document which made the transmission destination the specification address in S63, and was extracted in the text when it was an e-mail address by "Pages:." And in S64, response mail is sent to E-mail transmission-and-reception **** 37, and it sends a reply. Moreover, if a designated destination is a FAX number, in S65, it will change into a bitmapped image in the range which does not exceed the pagination which specified the extracted document by "Pages:", and a bitmapped image will be transmitted to a specification FAX number by facsimile transmission-and-reception **** 39 S66. Moreover, if the designated destination of "Reply:" is not an e-mail address or a FAX number, either, it will output by the document output section 35 in the range which does not exceed the pagination which specified the document extracted in S67 by "Pages:."

[0030] In such composition, the e-mail address with documentation-management equipment 22 peculiar to the equipment is given, and a user transmits the operator guidance mail into which the run book of drawing 2 was edited from each one of computers etc. to documentation-management equipment 22. The transmitted mail is once sent to the email server 23. E-mail transmission-and-reception **** 37 of documentation-management equipment 22 investigates whether the mail addressed to documentation-management equipment 22 is coming to the email server 23 periodically using the POP protocol, and while e-mail is coming, it acquires e-mail from the email server 23.

[0031] When the title serves as "Request format" in the operator guidance decode section 38, the acquired mail performs processing which sends a reply the format of a run book, except it, looks for the discernment header and discernment footer in a mail text, and decodes an instruction content in the meantime. Based on an instruction content, CPU31 control the document input section 32, the data storage section 36, a display 34, and the document output section 35, and perform an instruction content.

[0032] An execution result is sent to E-mail transmission-and-reception **** 37 or facsimile transmission-and-reception **** 39 according to directions. In E-mail transmission-and-reception **** 37, an execution result is made into the text and it is transmitted to the email server 23, using an SMTP protocol as specified mail addressed to an e-mail address. In facsimile transmission-and-reception **** 39, an execution result is changed into a bitmapped image, data compression for facsimile is performed further, and it is transmitted to the facsimile apparatus specified according to the facsimile protocol.

[0033] By exchange of the E-mail between the general-purpose personal computer and general-purpose Personal Digital Assistant which use the electronic mail communication function on a network, and do not incorporate software for exclusive use, thus, registration of a document, Economical efficiency can be improved, while being able to perform search, acquisition, and also the reply of a result and being able to do use easily.

[0034] (Form of the 2nd operation) In addition, a portion which attaches the same sign and is different is stated to the same portion as the form of the 1st operation mentioned above. As this shows drawing 10, the character recognition section 40 which changes into alphabetic data the image data which facsimile transmission-and-reception **** 39 received is formed, and the operator guidance decode section 381 also decodes not only an E-mail but the data which carried out facsimile reception. Namely, [said operator guidance decode section 381] while the contents of e-mail which E-mail transmission-and-reception **** 37 received from other terminals decode a written directive demand and the run book of registration of a document, search of a document, and acquisition of a document The facsimile data content which said facsimile transmission-and-reception **** 39 received from other facsimile apparatus decodes a written directive demand and the run book of registration of a document, search of a document, and acquisition of a document.

[0035] [CPU311 / and] It sends a reply considering the run book of the format shown in drawing 2 to other terminals (personal computer 24 etc.) which control said E-mail transmission-and-reception **** 37, and correspond when said

operator guidance decode section 381 decodes the written directive demand from said E-mail transmission-and-reception **** 37 as an E-mail. It sends a reply considering a registration result as an E-mail to other terminals which control said E-mail transmission-and-reception **** 37, and correspond while performing registration processing of a document to the data storage section 36, when said operator guidance decode section 38 decodes the run book of registration of a document. It sends a reply considering search results as an E-mail to other terminals which control said E-mail transmission-and-reception **** 37, and correspond while performing retrieval processing of the document to said data storage section 36, when said operator guidance decode section 38 decodes the run book of search of a document. The 1st documentation-management control means which sends a reply considering an acquisition result as an E-mail to other terminals which control said E-mail transmission-and-reception **** 37, and correspond while performing acquisition processing of the document from said data storage section 36, when said operator guidance decode section 38 decodes the run book of acquisition of a document, It sends a reply considering the run book of the format which defined beforehand said facsimile transmission-and-reception **** 39 to other facsimile apparatus which control and correspond when said operator guidance decode section 381 decoded the written directive demand from said character recognition section 40 as facsimile data. It sends a reply considering a registration result as facsimile data to other facsimile apparatus which control facsimile transmission-and-reception **** 39, and correspond while performing registration processing of a document to said data storage section 36, when said operator guidance decode section 381 decodes the run book of registration of a document. It sends a reply considering search results as facsimile data to other facsimile apparatus which control facsimile transmission-and-reception **** 39, and correspond while performing retrieval processing of the document to said data storage section 36, when said operator guidance decode section 381 decodes the run book of search of a document. When said operator guidance decode section 381 decodes the run book of acquisition of a document, while performing acquisition processing of the document from said data storage section 36 The 2nd documentation-management control means which sends a reply considering an acquisition result as facsimile data to other facsimile apparatus which control facsimile transmission-and-reception **** 39, and correspond is formed.

[0036] A series of processings when E-mail transmission-and-reception **** 37 receives an E-mail are the same as that of the form of operation mentioned above. Processing in case facsimile transmission-and-reception **** 39 performs other facsimile apparatus and facsimile communications is described hereafter.

[0037] [in such composition, a user writes down an instruction content in the operator guidance form which printed beforehand the discernment header, the discernment footer and the operator guidance item among the run books of

drawing 2, or] Or an operator guidance form is required of documentation-management equipment 22 from the facsimile apparatus of a user's hand, and it is sent from documentation-management equipment 22, and an instruction content is written down in the operator guidance form outputted from facsimile apparatus at hand, or an unnecessary character is smeared away, and a run book is drawn up.

[0038] Facsimile transmission of the image data of this form is carried out to documentation-management equipment 22 through the public network 26 from facsimile apparatus at hand. Documentation-management equipment 22 receives this facsimile image data by facsimile transmission-and-reception **** 39, changes this image data into alphabetic data in the character recognition section 40, and supplies it to the operator guidance decode section 381. The operator guidance decode section 381 looks for a discernment header and a discernment footer from alphabetic data, and decodes an instruction content in the meantime.

[0039] And based on the decoded instruction content, CPU311 control the document input section 32, the data storage section 36, a display 34, and the document output section 35, and perform an instruction content. An execution result is supplied to facsimile transmission-and-reception **** 39 or E-mail transmission-and-reception **** 37 according to directions. When facsimile transmission-and-reception **** 39 is supplied, an execution result is changed into a bitmapped image, data compression for facsimile is performed further, and it transmits to the facsimile apparatus specified according to the facsimile protocol. Moreover, when E-mail transmission-and-reception **** 37 is supplied, it transmits to the email server 23, using an SMTP protocol as mail addressed to an e-mail address which was mentioned above and which made the execution result the text and was specified by E-mail transmission-and-reception **** 37 like the form of the 1st operation.

[0040] Thus, the facsimile communication function on a public network is used, and economical efficiency can be improved, while being able to perform registration of a document, search, acquisition, and also the reply of a result and being able to do use easily by the facsimile communication between the general-purpose facsimile apparatus which do not incorporate software for exclusive use. In addition, of course, the same effect as the form of the 1st operation mentioned above also in the form of this operation is acquired.

[0041]

[Effect of the Invention] As mentioned above, according to invention according to claim 1, the electronic mail communication function on a network is used. Economical efficiency can be improved, while being able to perform registration of a document, search, acquisition, and also the reply of a result and being able to do use easily by exchange of the E-mail between the general-purpose personal computer and general-purpose Personal Digital Assistant which do not incorporate software for exclusive use.

[0042] Moreover, according to invention according to claim 2, the facsimile communication function on a public network is used. Economical efficiency can be improved, while being able to perform registration of a document, search, acquisition, and also the reply of a result and being able to do use easily by the facsimile communication between the general-purpose facsimile apparatus which do not incorporate software for exclusive use.

[Brief Description of the Drawings]

[Drawing 1] The block diagram of the network system in which the form of operation of the 1st of this invention is shown.

[Drawing 2] The figure showing the example of an E-mail of the run book in the form of this operation.

[Drawing 3] The block diagram showing the composition of the documentation-management equipment in the form of this operation.

[Drawing 4] The flow chart showing the main process by CPU of the documentation-management equipment in the form of this operation.

[Drawing 5] The flow chart showing the run book reply processing by CPU of the documentation-management equipment in the form of this operation.

[Drawing 6] The flow chart showing the error mail reply processing by CPU of the documentation-management equipment in the form of this operation.

[Drawing 7] The flow chart showing the document registration processing by CPU of the documentation-management equipment in the form of this operation.

[Drawing 8] The flow chart showing the document-retrieval processing by CPU of the documentation-management equipment in the form of this operation.

[Drawing 9] The flow chart showing the document acquisition processing by CPU of the documentation-management equipment in the form of this operation.

[Drawing 10] The block diagram showing the composition of the documentation-management equipment in the form of operation of the 2nd of this invention.

[Drawing 11] The block diagram showing the composition of conventional documentation-management equipment.

[Drawing 12] The block diagram of the network system which connected conventional documentation-management equipment.

[Explanations of letters or numerals] 31,311 [-- Operator guidance decode section 39 / -- Facsimile transmission-and-reception **** 40 / -- Character recognition section] -- CPU(central processing unit) 36 -- Data storage section 37 -- E-mail transmission-and-reception **** 38,381